

# VEGAMIP R 61 / T 61

## Relay

### Microwave barrier for level detection



#### Application area

VEGAMIP 61 is used as a universal level switch, preferably in bulk solids. It reliably detects when a certain level is reached. It can be used in vessels and pipelines in any installation position.

VEGAMIP 61 can detect a level also through a closed, non-metallic vessel wall. On metallic vessels the sensor can be mounted in a suitable socket or in front of a window of plastic, glass or ceramic.

#### Advantages

- Insensitive to soiling
- Ideal for harsh process conditions
- Unaffected by dust generation
- Unaffected by changing product properties
- Also suitable for object monitoring
- Simple instrument adjustment

#### Function

The emitter transmits a focused microwave signal via horn antenna to the receiver unit on the opposite side. If there is medium between transmitter and receiver, the signal is damped. This change is detected by the electronics in the receiver unit and converted into a switching command.

#### Technical data

Process pressure	-1 ... 4 bar/-100 ... 400 kPa (-14.5 ... 58 psig)
Process temperature	-40 ... +80 °C (-40 ... +176 °F)
Process temperature with mounting adapter	-40 ... +450 °C (-40 ... +842 °F)
Ambient, storage and transport temperature	-40 ... +80 °C (-40 ... +176 °F)
Hysteresis	approximately 1.33 dB
Process fitting	Thread from G1½ A, compression flange 3"
Operating voltage	20 ... 253 V AC, 50/60 Hz; 20 ... 72 V DC
Power consumption	1 ... 8 VA (AC), approximately 1.3 W (DC)
Turn-on voltage	min. 10 mV, max. 253 V AC, 253 V DC
Switching current	min. 10 µA / max. 3 A AC, 1 A DC
Breaking capacity	min. 50 mW, max. 750 VA AC, 54 W DC

#### Materials

The wetted parts of the instrument are made of stainless steel 316L and PTFE. The optional mounting adapter for process temperatures up to 400 °C is of 316L and has a cover of ceramic Al<sub>2</sub>O<sub>3</sub>.

You can find a complete overview of the available materials and seals in the "configurator" on our homepage at [www.vega.com/configurator](http://www.vega.com/configurator).

#### Housing versions

The housings are available in plastic, stainless steel or Aluminium. They are available with protection ratings up to IP 67.

#### Electronics versions

The receiver unit of the instrument has a relay output with two floating spds.

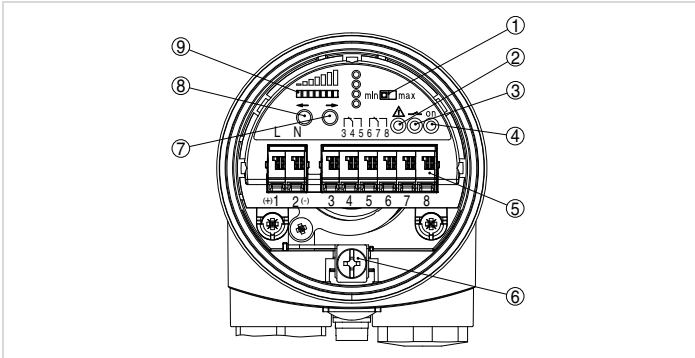
#### Approvals

The instruments are suitable for use in dust explosive areas and are approved e.g. according to ATEX, FM, CSA and IEC.

You can find detailed information on the existing approvals in the "configurator" on our homepage under [www.vega.com/configurator](http://www.vega.com/configurator).

## Operation

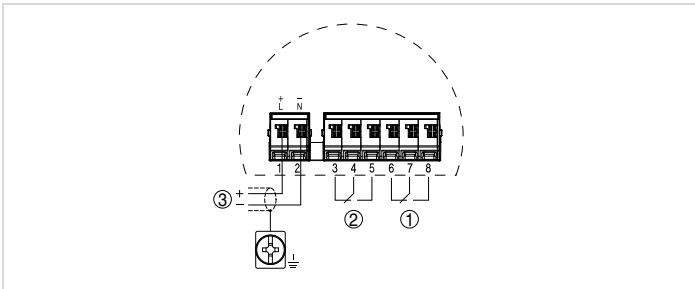
You can adjust the mode and sensitivity of the level switch on the electronics module of the receiver unit (R). Control lamps show operation, switching condition of the instrument and possible faults.



Electronics module receiver unit MPE60R - Relay output

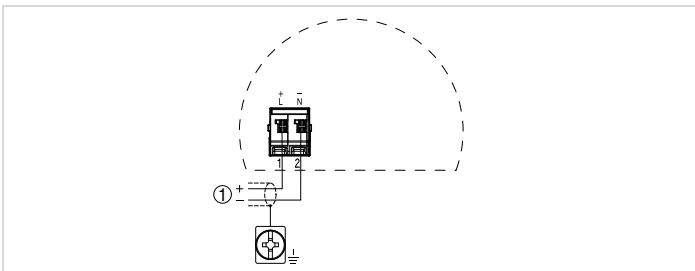
- 1 Mode switch for selecting the switching behaviour (min./max.)
- 2 Control lamp (LED) for indication of a fault (red)
- 3 Signal lamp (LED) for indication of the switching condition (yellow)
- 4 Control lamp (LED) for indication of the instrument function (green)
- 5 Connection terminals
- 6 Ground terminal
- 7 DIL switch for sensitivity adjustment (-->)
- 8 DIL switch for sensitivity adjustment (<--)
- 9 LED indicating board for indication of the receiving level (yellow)

## Electrical connection



Wiring plan receiver unit - VEGAMIP 61 R (receiver)

- 1 Relay output
- 2 Relay output
- 3 Power supply

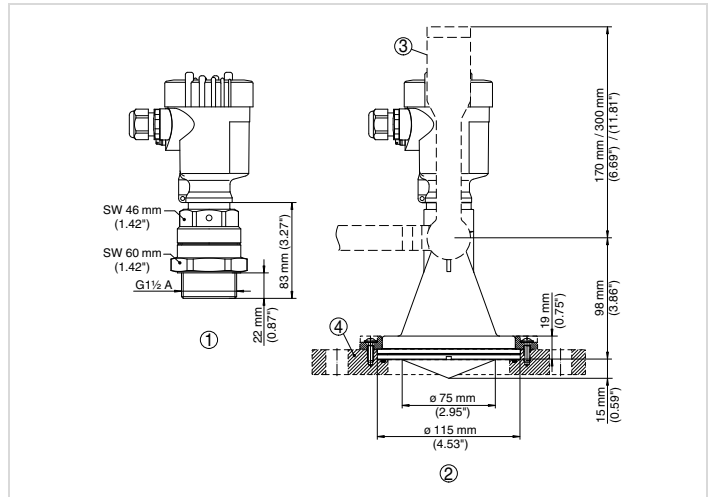


Wiring plan emitting unit - VEGAMIP 61 T (transmitter)

- 1 Power supply

You can find details on the electrical connection in the operating instructions of the instruments on our homepage under [www.vega.com/downloads](http://www.vega.com/downloads).

## Dimensions



VEGAMIP 61

- 1 Threaded version with PTFE cover
- 2 Plastic antenna with PP cover
- 3 Mounting strap
- 4 Adapter flange

## Information

You can find further information about the VEGA product line on our homepage [www.vega.com](http://www.vega.com). In the download section under [www.vega.com/downloads](http://www.vega.com/downloads) you'll find free operating instructions, product information, brochures, approval documents, instrument drawings and much, much more.

## Device selection

With the "finder" you can select the measuring principle best suiting your application: [www.vega.com/finder](http://www.vega.com/finder). You can find detailed information on the instrument versions in the "configurator" on our homepage under [www.vega.com/configurator](http://www.vega.com/configurator).

## Contact

You can find the VEGA agency serving your area on our homepage [www.vega.com](http://www.vega.com).